

REMARKS

Claims 1-69 were previously pending in this application. Claims 17-65 were previously withdrawn as the result of a Restriction Requirement. Claims 2, 4, 5, 11, 12 and 16 are amended herein. Claims 3, 10, 17-65, 67 and 68 are canceled herein. New Claims 70-78 are added herein. As a result claims 1, 2, 4-9, 11-16, 66 and 69-78 are pending for examination with claim 1 being an independent claim. No new matter has been added. Support for the claim amendments can be found at least in the originally filed claims, and for example, in Fig. 6C. The newly-added claims are directed to the elected invention and therefore should be examined pursuant to MPEP 821.03.

Rejections Under 35 U.S.C. §102

The Office Action rejects claims 1, 7, 10, 11, 13-15, 66, 67, and 69 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 4,175,297 to Robbins et al. (hereinafter "Robbins"). Applicant respectfully disagrees and asserts that the claims 1, 7, 11, 13-15, 67 and 69 are allowable because Robbins does not describe an inflatable device comprising a fluid controller that comprises (i) a pump configured to provide pressurized fluid to the compartment; (ii) a valve coupled to the inflatable bladder, the valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder; (iii) a cover configured to isolate the diaphragm of the valve from the compartment such that, with the cover in a closed position, the diaphragm is not exposed to the pressurized fluid received in the compartment; and (iv) a mechanical device operable to bias open the cover to expose the diaphragm to the compartment and to allow pressurized fluid to be delivered from the compartment to the inflatable bladder via the fluid passage as recited in claim 1. As mentioned above, claims 10 and 67 are canceled herein.

The Office Action refers to “a valve (within 40)” that “comprises a diaphragm 42, 53 with a ‘self-closing’ cover 43/44, 54, 55.” (Office Action at page 3.) As stated in Applicant’s previous response, Applicant does not agree with such an interpretation of Robbins because that interpretation conflicts with the common meaning of the terms valve, pump, etc. as used in the art. For example, a dictionary definition of a pump is “an apparatus or machine for raising, driving, exhausting, or compressing fluids or gases by means of a piston, plunger, or set of rotating vanes.” (See dictionary.com.) Robbins itself refers to the pump 40. Accordingly, Robbins does not describe a valve with a diaphragm as asserted in the Office Action.

Even if one is to employ the interpretation provided in the Office Action, however, Robbins still fails to describe the recited features at least because the “diaphragm” in Robbins is not “configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder” as recited in claim 1. Accordingly, for at least the above reasons, Applicant respectfully requests that the rejection of claim 1 as being anticipated by Robbins under 35 U.S.C. §102(b) be reconsidered and withdrawn. In addition, Applicant respectfully asserts that each of the dependent claims 7, 11, 13-15, 66 and 69 is also allowable because each depends either directly or indirectly from claim 1 and therefore is allowable at least for the same reasons. Thus, Applicant requests that the rejections of claims 7, 10, 11, 13-15, 66, 67, and 69 as being anticipated by Robbins under 35 U.S.C. §102(b) also be reconsidered and withdrawn.

The Office Action rejects claims 1-6, 10, 11, 13-15 and 67-69 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent No. 6,073,289 to Bolden et al. (hereinafter “Bolden”). Applicant respectfully disagrees and asserts that the claims 1, 2, 4-6, 11, 13-15 and 69 are allowable because Robbins does not describe an inflatable device comprising a compartment and a fluid controller that comprises “(i) a pump configured to provide pressurized fluid to the compartment; (ii) a valve coupled to the inflatable bladder, the valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable

bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder” as recited in claim 1. Claims 3, 10, 67 and 68 are canceled herein.

Accordingly, for at least the above reasons, Applicant respectfully requests that the rejection of claim 1 as being anticipated by Bolden under 35 U.S.C. §102(b) be reconsidered and withdrawn. In addition, Applicant respectfully asserts that each of the dependent claims 2, 4-6, 11, 13-15 and 69 is also allowable because each depends either directly or indirectly from claim 1 and therefore is allowable at least for the same reasons. Thus, Applicant requests that the rejections of claims 2-6, 10, 11, 13-15 and 67-69 as being anticipated by Bolden under 35 U.S.C. §102(b) also be reconsidered and withdrawn.

The Office Action rejects claims 1-3, 6, 10, 11, 16, and 67-69 under 35 U.S.C. §102(b) as being anticipated by U.S. Patent Publication No. 2002/0194678 to Chung (hereinafter “Chung”). Applicant respectfully disagrees and asserts that the claims 1, 2, 11, 13-15 and 69 are allowable because Chung does not describe an inflatable device comprising a compartment and a fluid controller that comprises “(i) a pump configured to provide pressurized fluid to the compartment; (ii) a valve coupled to the inflatable bladder, the valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder; (iii) a cover configured to isolate the diaphragm of the valve from the compartment such that, with the cover in a closed position, the diaphragm is not exposed to the pressurized fluid received in the compartment;” as recited in claim 1. (Claims 3, 10 and 67 are canceled herein.)

That is, Chung does not describe that a pump provides pressurized fluid to a compartment where a fluid controller includes a valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow

through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder, in particular, where a cover is configured to isolate the diaphragm of the valve from the compartment such that, with the cover in a closed position, the diaphragm is not exposed to the pressurized fluid received in the compartment. Instead, Chung describes that a bellows 94 pumps air into the shank 92 via a check valve 98. Applicant respectfully asserts that the Office Action's reference to a valve 96/97 where 96 is a "diaphragm" and 97 is a "cover" (Office Action at page 5) also fails to describe a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder, as recited in claim 1, at least because the valve 96 is not opened by exposure to a pressure of the pressurized fluid from the pump.

Accordingly, for at least the above reasons, Applicant respectfully requests that the rejection of claim 1 as being anticipated by Chung under 35 U.S.C. §102(b) be reconsidered and withdrawn. In addition, Applicant respectfully asserts that each of the dependent claims 2, 11, 13-15 and 69 is also allowable because each depends either directly or indirectly from claim 1 and therefore is allowable at least for the same reasons. Thus, Applicant requests that the rejections of claims 2, 3, 6, 10, 11, 16, and 67-69 as being anticipated by Chung under 35 U.S.C. §102(b) also be reconsidered and withdrawn.

Rejections Under 35 U.S.C. §103

Claims 12 and 14-16 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bolden in view of Chung. Applicant respectfully disagrees and asserts that claims 12 and 14-16 are patentable over Bolden in view of Chung.

Each of claims 12 and 14-16 depend either directly or indirectly from independent claim 1. As explained above, neither Bolden nor Chung alone describe the features of claim 1. In

addition, the combination of Bolden and Chung also fails to teach or suggest, for example, “(ii) a valve coupled to the inflatable bladder, the valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder; (iii) a cover configured to isolate the diaphragm of the valve from the compartment such that, with the cover in a closed position, the diaphragm is not exposed to the pressurized fluid received in the compartment,” as recited in claim 1. Thus, each of claims 12 and 14-16 is patentable for at least the same reasons as claim 1. Accordingly, Applicants respectfully request that the rejection of claim 12 and 14-16 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

Claims 7-9 are rejected under 35 U.S.C. §103(a) as being unpatentable over Bolden in view of U.S. Patent No. 6,098,000 to Long et al. As described above, independent claim 1 is patentable in view of Bolden. Each of claims 7-9 depend either directly or indirectly from claim 1. Because Long also fails to teach or suggest (i) a pump configured to provide pressurized fluid to the compartment; (ii) a valve coupled to the inflatable bladder, the valve including a valve body that provides a fluid passage that couples the compartment to the inflatable bladder, and a diaphragm configured both to close the fluid passage under a bias of pressurized fluid in the inflatable bladder to prevent fluid flow through the fluid passage and to at least partially open to allow fluid flow through the fluid passage when the diaphragm is exposed to a pressure of the pressurized fluid from the pump that is greater than a pressure in the inflatable bladder; (iii) a cover configured to isolate the diaphragm of the valve from the compartment such that, with the cover in a closed position, the diaphragm is not exposed to the pressurized fluid received in the compartment, as recited in claim 1, each of claims 7-9 is also patentable for at least the same reasons as claim 1. Accordingly, Applicants respectfully request that the rejection of claim 7-9 under 35 U.S.C. §103(a) be reconsidered and withdrawn.

CONCLUSION

In view of the foregoing amendments and remarks, reconsideration is respectfully requested. This application should now be in condition for allowance; a notice to this effect is respectfully requested. If the Examiner believes, after this amendment, that the application is not in condition for allowance, the Examiner is requested to call the Applicant's attorney at the telephone number listed below.

If this response is not considered timely filed, Applicant hereby requests any necessary extension of time. If there is a fee occasioned by this response, including an extension fee, that is not covered by the payment included here, please charge any deficiency to Deposit Account No. 50/2762, Ref. No. C0852-703030.

Respectfully submitted,
Robert B. Chaffee, Applicant

By: /Robert V. Donahoe/
Robert V. Donahoe, Reg. No. 46,667
LOWRIE, LANDO & ANASTASI, LLP
One Main Street
Cambridge, Massachusetts 02142
United States of America
Telephone: 617-395-7000
Facsimile: 617-395-7070